

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A multi-layer sensor through which an optical wave guide (18, 42, 60) is passed, the optical wave guide (18, 42, 60) defining a structure (52, 82, 104) in which the optical wave guide (18, 42, 60) is contained, the structure (52, 82, 104) having a front layer (54, 84, 106) and a rear layer (56, 86) which transmits an external application of force directly onto the optical wave guide (18, 42, 60), the structure further including ~~elips~~ domes (34, 102) each defining slots for retaining the optical wave guide (18, 42, 60) in a curved path and ribs (38, 62, 88) for deforming the optical wave guide (18, 42, 60) in a single plane.

2. (Previously presented) A multi-layer sensor according to claim 1, wherein the optical wave guide (18, 42, 60) is arranged such that the optical wave guide (18, 42, 60) is bent by the external application of force.

3-5. (Cancelled)

6. (Previously presented) A multi-layer sensor according to claim 1 wherein the front and rear layers (54, 56, 84, 86, 106) are joined together by an adhesive layer (70, 108).

7. (Previously presented) A multi-layer sensor according to claim 6, wherein the adhesive layer (70, 108) is applied only in region of edges of the front and rear layers (54, 56, 84, 86, 106).

8. (Previously presented) A multi-layer sensor according to claim 7, having a first layer (12) through which an optical wave guide (18, 42, 60) is passed and a second layer (14, 32) which abuts on the first layer (12), the first layer (12) having greater compressibility than the second layer (14, 32).

9. (Original) A multi-layer sensor according to claim 8, wherein a third layer (16, 30, 40) is provided which has lower compressibility than the first layer (12) and which is arranged such that the first layer (12) is disposed between the second layer (14, 32) and the third layer (16, 30, 40).

10. (Original) A multi-layer sensor according to claim 9 1, wherein the optical wave guide (18, 42, 60) is passed through the sensor (10, 50, 80, 100) at least twice.

11. (Original) A multi-layer sensor according to claim 10, wherein the optical wave guide (18, 42, 60) is passed through the sensor in a wave-like configuration.

12. (Currently amended) A multi-layer sensor comprising:
a first layer extending in a longitudinal direction and including a plurality of ~~elips~~ domes mounted therealong, each of said plurality of domes including a slot extending therethrough, said plurality of ~~elips~~ domes spaced apart from one another longitudinally and offset from one another in a lateral direction;

an optical wave guide retained solely by said plurality of ~~elips~~ domes, said optical wave guide extending through said slots in said plurality of elips domes ~~in a curved path~~; and

a second layer facing said first layer and selectively transmitting an external application of force to said optical wave guide, said second layer including ribs for deforming said optical wave guide towards said first layer in response to an impact in order to change the amount of light carried per unit of time through said optical wave guide.

13. (Previously presented) A multi-layer sensor as set forth in claim 12 wherein said first and second layers are joined together by an adhesive layer.

14. (New) A multi-layer sensor comprising:
a first layer through which an optical wave guide is guided, said optical wave guide being arranged in such a way that in the case of exposure to an action of an external force said external force acts on the optical wave guide;

a second layer which lies against said first layer; and

a third layer which is arranged in such a way that said first layer is arranged between said second and third layers;

said third layer including domes formed thereon, each of said domes having a slot through which said optical wave guide is guided.